

AMENDMENTS TO THE CLAIMS

Claims 1-24. (Canceled)

25. (Currently amended) A method for assisting a person in controlling one or more devices ~~or processes~~, comprising the steps of:

- a) attaching a vibration sensor, capable of detecting mechanical vibrations, either
 - i. ~~on~~ to the person's head; or
 - ii. under the skin over a bony mastoid process or over a temporomandibular joint;
- b) providing one or more devices capable of causing or stimulating movement of a body part of the person;
- c) detecting with the sensor, mechanical vibrations elicited by sudden contact of the person's upper teeth and lower teeth;
- d) generating an electrical signal from the sensed mechanical vibrations; and
- e) transmitting the electrical signal to the one or more devices ~~or processes~~ to be controlled so as to cause or stimulate movement of the person's body part.

26. (Currently amended) The method according to claim 25 37, wherein the sensor is attached on a side of the person's head.

27. (Currently amended) The method according to claim 26 37, wherein the sensor is attached to ~~on the side of~~ the person's head over a bony mastoid process or over a temporomandibular joint.

28. (Currently amended) The method according to claim 26 37, wherein the sensor is attached to ~~on the side of~~ the person's head at a location to sense the mechanical vibrations of the person's bony mastoid process.

29. (Currently amended) The method according to claim ~~26~~ 37, wherein the sensor is attached to ~~on the side of~~ the person's head at a location to sense the mechanical vibrations of the person's temporomandibular joint.

30. (Previously presented) The method according to claim 27, wherein the sensor is an accelerometer or a microphone.

31. (Previously presented) The method according to claim 25, wherein the sensor is an accelerometer.

32. (Previously presented) The method according to claim 27, wherein the sensor is an accelerometer.

33. (Currently amended) The method according to claim 32, wherein the sensor is attached to ~~on the side of~~ the person's head for detecting the vibrations using one or more attachment devices selected from the group consisting of an adhesive, an adhesive tape, an elastic headband, a spring loaded headpiece, and a pair of glasses with springy arms.

34. (Currently amended) The method according to claim 31, wherein steps ~~(b)~~, (c), ~~and (d)~~, and (e) take place in an encapsulation under the skin.

35. (Currently amended) The method according to claim 33 or 34, wherein in step (d) the electrical signal is transmitted to an electronic controller adapted to produce an output signal to control the one or more devices ~~or processes~~.

36. (Canceled)

37. (Currently amended) The method according to claim ~~35~~ 25, wherein the device being controlled is one capable of stimulating muscles or nerves, or is an active orthosis or prosthesis.

38. (Currently amended) The method according to claim 35 25, wherein the device being controlled is ~~selected from the group consisting of an active orthosis, a prosthesis, a cuff capable of stimulating the muscles in the person's hand, an electronic device and a computer.~~

39. (Previously presented) The method according to claim 35, wherein the device being controlled is a cuff equipped with electrodes that stimulate muscles in the person's hand.

40. (Currently amended) The method according to claim 38, wherein the controller discriminates a temporal pattern or intensity from the electrical signal, and generates a corresponding output signal to control the one or more devices ~~or processes.~~

41. (Previously presented) The method according to claim 38, further comprising amplifying the electrical signal.

42. (Previously presented) The method according to claim 41, further comprising filtering the electrical signal to attenuate signals corresponding to vibrations unrelated to tooth clicks.

43. (Previously presented) The method according to claim 42, wherein the controller includes a logic circuit to recognize selectively tooth click related components of the electrical signal.

44. (Previously presented) The method according to claim 43, wherein the output signal is directed to a signal generator that generates trains of electrical pulses operative to stimulate muscles or nerves.

45. (Previously presented) The method according to claim 44, wherein in step (d) the electrical signal or the output signal is transmitted using a wire, wireless or fibre optic transmitter or a passive transponder, and wherein the controller includes a receiver capable of receiving the transmitted electrical signal.

46. (Currently amended) An apparatus for ~~assisting a person in controlling~~ use with one or more devices ~~or processes~~, comprising:

a vibration sensor capable of detecting mechanical vibrations elicited by sudden contact of the person's upper teeth and lower teeth and of generating an electrical signal from the sensed mechanical vibrations for transmitting to the one or more devices ~~or processes~~; and either:

i. an attachment device for attaching the vibration sensor ~~externally on~~ to the person's head for detecting the mechanical vibrations; or

ii. an encapsulation ~~for~~ of the sensor for placement under the skin over a bony mastoid process or over a temporomandibular joint;

wherein the one or more devices being controlled is capable of causing or stimulating movement of a body part of the person.

47. (Currently amended) The apparatus according to claim 46 59, wherein the attachment device is adapted to attach the sensor on a side of the person's head.

48. (Currently amended) The apparatus according to claim 47 59, wherein the attachment device is adapted to attach the sensor to ~~on the side of~~ the person's head over the bony mastoid process or over the temporomandibular joint.

49. (Currently amended) The apparatus according to claim 47 59, wherein the attachment device is adapted to attach the sensor to ~~on the side of~~ the person's head at a location to sense the mechanical vibrations of the person's bony mastoid process.

50. (Currently amended) The apparatus according to claim 47 59, wherein the attachment device is adapted to attach the sensor to ~~on the side of~~ the person's head at a location to sense the mechanical vibrations of the person's temporomandibular joint.

51. (Previously presented) The apparatus according to claim 48, wherein the sensor is an accelerometer or a microphone.

52. (Previously presented) The apparatus according to claim 46, wherein the sensor is an accelerometer.

53. (Previously presented) The apparatus according to claim 48, wherein the sensor is an accelerometer.

54. (Currently amended) The apparatus according to claim 53, which further comprises means for transmitting the electrical signal to the one or more devices ~~or processes~~ to be controlled.

55. (Previously presented) The apparatus according to claim 54, wherein the attachment device is selected from the group consisting of an adhesive, an adhesive tape, an elastic headband, a spring loaded headpiece, and a pair of glasses with springy arms.

56. (Currently amended) The apparatus according to claim 52, further comprising means for transmitting the electrical signal to the one or more devices ~~or processes to be controlled~~, and wherein when the apparatus includes an the encapsulation is for of the sensor for placement under the skin, the encapsulation further encapsulating and the means for transmitting the electrical signal.

57. (Currently amended) The apparatus according to claim 55 or 56, which further comprises an electronic controller adapted to receive the transmitted electrical signal and to produce an output signal to control the one or more devices ~~or processes~~.

58. (Canceled)

59. (Currently amended) The apparatus according to claim ~~57~~ 46, wherein the device being controlled is one capable of stimulating muscles or nerves, or is an active orthosis or prosthesis.

60. (Currently amended) The apparatus according to claim ~~57~~ 46, wherein the device being controlled is ~~selected from the group consisting of an active orthosis, a prosthesis, a cuff capable of stimulating the muscles in the person's hand, an electronic device and a computer.~~

61. (Previously presented) The apparatus according to claim 57, wherein the device being controlled is a cuff equipped with electrodes that stimulate muscles in the person's hand.

62. (Currently amended) The apparatus according to claim 60, wherein the controller discriminates a temporal pattern or intensity from the electrical signal, and generates a corresponding output signal to control the one or more devices ~~or processes.~~

63. (Previously presented) The apparatus according to claim 60, further comprising an amplifier for amplifying the electrical signal.

64. (Previously presented) The apparatus according to claim 63, further comprising a filter for filtering the electrical signal to attenuate signals corresponding to vibrations unrelated to tooth clicks.

65. (Previously presented) The apparatus according to claim 64, wherein the controller includes a logic circuit to recognize selectively tooth click related components of the electrical signal.

66. (Previously presented) The apparatus according to claim 65, wherein the output signal is directed to a signal generator that generates trains of electrical pulses operative to stimulate muscles or nerves.

67. (Previously presented) The apparatus according to claim 66, wherein the means for transmitting is a wire, wireless or fibre optic transmitter or a passive transponder, and wherein the controller includes a receiver capable of receiving the transmitted electrical signal.

68. (Previously presented) The apparatus according to claim 56, wherein the means for transmitting is a wireless transmitter or a passive transponder, and wherein the electronic controller includes a receiver capable of receiving the transmitted electrical signal.

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